

Sikadur®-32 Normal

Epoxy resin bonding agent

Construction

Product Description

Sikadur®-32 Normal is a high performance bonding agent based on a 2-component solvent-free epoxy resin ideally suited for a wide range of building and civil engineering applications.

Uses

Sikadur®-32 Normal may be used to bond epoxy mortars, fresh cementitious concrete or mortar to a wide variety of surfaces including mineral substrates (concrete, brick, stone, mortar, fibrous cement), wood, iron, steel and cured epoxy mortars.

Sikadur®-32 Normal exhibits excellent adhesion enabling it to be successfully employed in both structural and non-structural situations. Special high strength grades can be made to order.

Characteristics / Advantages

- Shrink free
- Insensitive to moisture during application, cure or whilst in service
- Applicable at low temperatures down to 5°C
- Excellent adhesion to most building materials even when damp
- High tensile and flexural strength
- Supplied in factory proportioned units
- Easily applied
- Proven in service for over 25 years worldwide
- Pre-batched for easy mixing

Test

Approval / Standards Complies with ASTM, C881-78, Type II, Grade 2, Class B & C

Product Data

Form

Appearance / Colours Slightly thixotropic liquid. Grey / Beige.

Packaging 5 kg (A+B) set

Storage

Storage Conditions / Shelf-Life 24 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +35°C. Keep away from direct sunlight.



Technical Data

Chemical Base	Epoxy resin
Density	1.4 kg/l (approx.)
Solid Content	100% (solvent free)

Mechanical / Physical Properties

Compressive Strength	~ 60 MPa	(14 days at +20°C)
Flexural Strength	~ 28 MPa	(7 days at +20°C)
Tensile Strength	~ 13 MPa	(7 days at +20°C)
Adhesion to Concrete	> 1.50 MPa (concrete failure all grades)	(7 days)
Adhesion to Sandblasted Steel	~ 15 - 20 MPa (epoxy failure)	(7 days)
E-Modulus	~ 2.0 GPa (secant flexural modulus of elasticity)	(7 days)

System Information

Application Details

Consumption / Dosage The consumption is 0.25 – 0.8 kg/m² (typically 0.4 – 0.5 kg/m²).
The consumption is dependent on the surface profile, texture, temperature and wastage.

Substrate Preparation Mineral/Resin substrates:
Mechanically roughened, free from all contaminants (dust, oils, grease, ice, etc.), surface water, laitance, old form oil, curing membrane and old coatings. Suitable methods of preparation include blast cleaning and scabbling (sanding/grinding on fibrous cement).
Wood:
Mechanically sanded, free from all contaminants (dust, oils, grease, etc.), surface water, stains, impregnations and old coatings.
Iron/Steel:
Mechanically cleaned, free from all contaminants (dust, oils, grease, etc.), coatings, corrosion products and surface water for maximum bond strength. Suitable methods include blast cleaning to minimum standards Sa2 AS 1637.9 or equivalent methods to St3 AS 1627.9.

Application Conditions / Limitations

Substrate Temperature	+5°C min. / +30°C max.
Ambient Temperature	+5°C min. / +30°C max.

Application Instructions

Mixing

Part A : part B = 2 : 1 by weight or volume.

Sikadur®-32 Normal is supplied in pre-batched units comprising the correct quantities of Part A (resin) and Part B (hardener). Thoroughly stir both components separately using a slow running drill/stirrer with a windmill type paddle (max. speed of 600 rpm). Decant all Part B into Part A and mix thoroughly together until a uniform colour is achieved (typically 3 minutes). Apply immediately.

Application Method / Tools

Apply a thin layer of Sikadur®-32 Normal to the prepared substrate by brush or roller. Ensure the product is worked well (scrubbed) into the substrate. This is particularly important on damp surfaces. Ensure the attainment of an overall glossy sheen. Any shear connectors or similar must also be coated. Apply the fresh concrete or mortar whilst the Sikadur®-32 Normal is still tacky. Apply epoxy mortars within 24 hours.

Cleaning of Tools

Clean all tools and application equipment with Sika® Colma Cleaner immediately after use. Hardener / cured material can only be mechanically removed.

Potlife (5 kg set)

+10°C	+20°C	+30°C
~ 50 minutes	~ 30 minutes	~ 15 minutes

Open Time

+10°C	+20°C	+30°C
~ 90 minutes	~ 60 minutes	~ 30 minutes

Bond coat of Sikadur®-32 Normal applied immediately after mixing.

Curing Details

Notes on Application / Limitations

- Do not apply Sikadur®-32 Normal to surfaces with standing water. Maximum moisture content of the concrete: 10%
- Do not mix part kits
- Only mix as much as can be applied within the stated potlife
- Do not dilute the product with solvent as this will affect the cure and in-service performance
- Service temperatures above +70°C may affect the performance of the product
- Lower temperature (substrate/ambient) during storage/application will increase the material consumption due to a rise in viscosity
- Minimum application thickness is 0.2 mm as bonding agent
- If Sikadur®-32 Normal has exceeded its open time, another coat must be applied within 24 hours. After 24 hours the surface must be mechanically abraded then washed clean with Sika® Colma Cleaner. Allow to dry before recoating
- It is important to observe proper concreting practice when applying concrete toppings and screeds on substrates coated with Sikadur®-32 Normal. Correct placement and curing techniques must be observed to prevent excessive and rapid drying of the mix
- If in doubt, consult our Technical Department
- The temperature at which Sikadur®-32 Normal is stored during the 24 hours before it is mixed will govern its potlife when mixed
- Compressive and other mechanical strengths of epoxy resins must be qualified by the testing method (e.g. Test Standard) or size of specimen under test and the rate at which the test piece is loaded while under test, as these factors will affect the result markedly. Faster loading rates will generally give higher ultimate loads and vice versa. Also, a specimen at lower temperature will show higher strengths and vice versa

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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